

Appendix A
Table 1-1: Project Summary

**Coastal Hazards Removal Project,
Santa Barbara Channel**

Project Description

Site No.	Hazard Site Name/Location	Hazard Description	Hazard Removal Method ²	Site Access Route	Staging Area	Project Equipment Requirements ³ Project Personnel Requirements ⁴	Project Duration (hours) ¹
Please refer to Hazard Site Exhibit book for further specifics and available photographs of these hazards.							
1	Tajiguas Creek Hazard site is located approximately 8-10 feet seaward of seawall	30 Railroad Irons	B	thru private property via Arroyo Cuemada	on private property		16
2	El Capitan State Beach	a - 184 6" H Piles b - 3 Well Casings	a - B* b - B*	via gated paved road before park entrance station, east side	state park maint. yard		60
3	Las Varas Canyon Exact hazard site location is currently unknown.	a - 75 6" H Piles b - 3 Well Casings	DELETED - HAZARD DOES NOT EXIST ANY LONGER				
4	Ellwood West of VENOCO Ellwood Pier Hazard site is located approximately 750 feet west of Ellwood Pier.	a - 25 6" H Piles b - Possible Well Casing	a - B*, S _{BD} b - B*, S _{BD}	thru VENOCO pier lot access and private property owner	above Ellwood Pier parking lot - private property		16
5	Ellwood - East of VENOCO Ellwood Pier Eastern most pier hazard is located approximately 200 yards east of Venoco Well Pier (PRC-421).	a - 128 6" H Piles b - 20 Wood Piles c - 2 12" Well Casings d - 40' Length of Wood Sheet Piles	a - B, S _{BD} , S b - B, S _{BD} , S c - B, S _{BD} , S d - B	Haskell Beach for locations W of Bell Canyon Creek (or, for all of this hazard if creek not flowing) VENOCO easement thru Sandpiper Golf Course for locations E of Bell Canyon Creek if creek is flowing	in front of VENOCO Gas Plant - Hollister Ave. frontage rd, keep clear for emergency vehicles		90

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6	Santa Barbara Shores (A) Hazard site is located south of Santa Barbara Shores Drive about 200 yards southeast of GPS waypoint A-76.	a - 80 6" H Piles b - 3 14" Well Casings c - 500' of 6" Pipeline	a - B* b - B, S _{BD} c - B, S	primary- through gate on Santa Barbara Shores Dr. and along dirt road to bluff, east along bluff to old paved road then east on dirt road to beach. secondary- VENOCO gate off Storke Rd, behind Ocean Meadows Golf Course and UCSB, down old road just west of EMT to beach.	primary - on bluff top, erect temp fencing secondary - within VENOCO Ellwood Marine Terminal (EMT) fence		56
7	Santa Barbara Shores (B) Hazard site is located immediately south of Santa Barbara Shores Drive.	a - 79 6" H Piles b - 59 Railroad Irons c - 900' of Wood Sheet Pile - as directed, out of 5120' overall length of site d - 131 10" Wood Posts with or without metal tieback rods	a - B* b - B* c - B d - B	primary- through gate on Santa Barbara Shores Dr. and along dirt road to bluff, east along bluff to old paved road then east on dirt road to beach. secondary- VENOCO gate off Storke Rd, behind Ocean Meadows Golf Course and UCSB, down old road just west of EMT to beach.	primary - on bluff top, erect temp fencing secondary - within VENOCO Ellwood Marine Terminal (EMT) fence		60

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8	Sands Beach at Devereaux Slough Hazards site is located approximately 48 yards, bearing 218 degrees (magnetic north) from the "Ecological Area" sign; the first 2.75-inch pipe hazard is located approximately 230 yards bearing 152 degrees (magnetic north) from the first hazard location.	a - 30 2.5" Pipe Frames b - 2 6" Well Casings c - 12-inch Steel Beam	a - B b - B c - B	via Storke Rd to El Colegio Rd and past Devereaux Ranch School to gravel parking lot - thru chain link fence onto beach	primary - in gravel parking lot at access location secondary - UCSB maint. yard		16
9	Devereaux Point Hazard site is located southeast of UCSB Coal Oil Point Facility.	a - 8 6" H Piles b - 4 6" Well Casings	a - B* b - B	via Storke Rd to El Colegio Rd and past Devereaux Ranch School to gravel parking lot - thru chain link fence onto beach	primary - in gravel parking lot at access location secondary - UCSB maint. yard		8
10	Isla Vista Hazard site is located at Isla Vista (Seven Well Sites).	a - 55 6" H Piles b - 4 6" Well Casings	a - B* b - B	via Storke Rd to El Colegio Rd and past Devereaux Ranch School to gravel parking lot - thru chain link fence onto beach	primary - in gravel parking lot at access location secondary - UCSB maint. yard		32

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11	Goleta Beach- East End The first pier hazard site is located at the bottom of the trail leading from "The Gas Company" access gate, the last pier site is located 22 feet west of black rocks at the end of the beach.	a - 500 10" H Piles b - 25 6' Diameter Concrete-Filled Well Caissons	DELETED - MOST HAZARDS REMOVED AS PART OF PREVIOUS PROJECT				
12	East Beach, Santa Barbara Hazard site is located within the granted lands of the City of Santa Barbara.	2 100' Steel Groins with Wood Caps	DELETED - LAND OWNER (CLARK ESTATE) HAS TAKEN OVER THIS WORK				
13	Biltmore, South Birham Hazard site is located in front of Biltmore Hotel.	30' Steel Groin	B _{limited}	beach parking from closest street location	staging not necessary	hand crew only, carry equipment and debris.	8
14	Miramar, Santa Barbara-Carpinteria	6 Wood Piles	B	primary-thru gated SB County Parks ramp at corner of Posilipo Lane & Fernald Point Lane secondary-thru gated SB County Parks ramp at end of Eucalyptus Lane	within Miramar Hotel construction site		8

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15	Fernald Pt., Santa Barbara	60' Steel Sheet Pile	B	primary-thru gated SB County Parks ramp at corner of Posilipo Lane & Fernald Point Lane secondary-thru gated SB County Parks ramp at end of Eucalyptus Lane	within Miramar Hotel construction site		16
16	Ortega at Summerland East End-Padaro Lane A power cable hazard is located approximately 75 feet east of the county "Danger" sign located at the base of the beach access trail, the H-iron beam hazards are located approximately 12 feet east of the concrete retaining wall.	a - 180 Railroad Iron b - 31 6" H Piles c - 1 8" Well Casing d - 3 12" Well Casings e - 600' Electrical Cable (from former Platform Hilda)	a - B b - B* c - B d - B e - B, S	primary-thru road adjacent to Summerland Sanitary District and recycle plant above Summerland Beach secondary-thru road at Lookout Park.	fenced yard at Summerland Sanitary District plant above Summerland Beach		100
17	Santa Barbara at Santa Claus Lane The hazard sites are located on the ocean side of the boulder breakwater along Santa Clause Lane and the Southern Pacific Railroad right-of-way.	a - 12 8" H Piles b - 850 Railroad Irons	a - B b - B	across low spot (gap) in rip-rap armor stone at location approx 100 yds east of Santa Claus Lane Fwy 101 exit overpass	CalTrans yard on Santa Claus Lane		56

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18	Carpinteria State Beach Hazard site is located near mouth of Carpinteria Creek.	a - 2 12" Well Casings b- angle bar in conglomerate tar	a - B b - B	from Carpinteria State Beach, via Palm Ave entrance over bridge to east end and onto sand	CleanSeas lot or VENOCO Casitas Pier parking lot		8
19	Casitas Pier - East Side Hazard site is located within seal sanctuary and rookery, approximately 270 feet, bearing 101 degrees (magnetic north) from red "Stop - Seal Rookery" sign on driveway next to pier.	10 12" H Piles	B*	VENOCO Casitas Pier turnaround	CleanSeas lot or VENOCO Casitas Pier parking lot	work with hand crews only - place equipment onto beach and haul debris from beach with truck on pier	8
20	Rincon/Mussels Shoals at Mussel Rock/Pitas Pt. Hazard site is located near foot of beach stair to 6766 Breakers Way - west of pier.	30 6" H Piles	B, S _{BD}	Mussel Shoals Rd to Ocean Ave to pier/causeway access road	Rincon Pier parking lot		16
21	Ventura River, Ventura Hazard site is located at south side of the Ventura River approximately 50 feet south/southwest of boulder shore protection.	18 8" H Piles	B	Fairground frontage road at turnaround	Fairgrounds or CalTrans yard adjacent to fairgrounds at NW corner		16

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Please refer to Hazard Site Exhibit book for further specifics and available photographs of these hazards.							
22	Ortega Hill, East Fernald Point Hazard site is located east of Fernald Point beginning approximately 8-10 feet south of concrete retaining wall.	80 H Beams	B	primary-thru gated SB County Parks ramp at corner of Posilipo Lane & Fernald Point Lane secondary-thru gated SB County Parks ramp at end of Eucalyptus Lane	within Miramar Hotel construction site		16
23	Rincon Point	5 Railroad Irons	B _{limited}	walk in from west parking lot	staging not necessary	hand crew only, carry equipment and debris.	8
24	Pauley Well	Remove abandoned offshore wellhead	O	offshore via boat	not applicable		24

- Notes: 1 **Project Durations** are based on 8 hour days, except #24 which is based on 12 hour days. The durations shown are what is expected to be the time reasonably expected to perform the work. However, this work is sensitive to tidal variation and wave action which are beyond our control, consequently, the actual time to perform the hazard removal may exceed the number indicated.
- 2 **Hazard Methods of Removal** consist of six (6) categories as described below:
Beach (B) - Work is conducted from/on the beach with approach via vehicles on land. Removal method characterized as excavate/expose and cut/burn.
Beach* (B*) - Work is expected to be conducted from/on the beach, but depending upon tides, it may be required to perform some shallow diving in limited water depth. Removal method characterized as excavate/expose and cut/burn. Approach via vehicles on land.
Shallow Diving (S) - Work is conducted by shallow air diving with approach via boat on water. Removal method characterized as excavate/expose and cut/burn.
Shallow Diving (S_{BD}) - Work is conducted by shallow air diving in limited water depth with approach via land. Removal method characterized as excavate/expose and cut/burn.
Vibratory (V) - Work is conducted from/on the beach using vibratory pile extractors with approach via vehicles on land.
Offshore (O) - Work is conducted by deep air/gas diving with approach via boat on water.
- 3 **Project Equipment Requirements** consist of five (5) categories and one (1) sub-category as described below.
Note: In all cases, equivalent equipment substitutions, i.e. manufacturer, model, etc. may be made depending upon equipment availability at time of work commencement.
- Basic Beach Spread (1) 1 T Stake Bed Truck, Ford F-350 (Staging Area)
(1) 5 T 20' Stake Bed/Flat Bed Truck (Staging Area)
(1) R/T Forklift (Staging Area) (make/model??)
(2) 20' Roll Off Bins; 1 for metal debris, 1 for wood debris (Staging Area)
(1) Backhoe, CAT 416D 4x4
(1) Skip Loader, CASE 4-390
(1) 2-Wheel Material Trailer w/ 6-1/2' x 15' Bed
(1) Lincoln 400A Welding Machine
(1) Oxyacetylene Torch/Bottles/Hoses
(2) Gasoline-Powered Chainsaws
(1) Broco Torch
(1) Miscellaneous Tool/Job Box, including shovels, rigging, etc.
(1) 350 gpm Gasoline-Powered Self-Priming Water (Trash) Pump
(1) 14 gpm Diesel-Powered Hydraulic Power Unit
- Limited Beach Spread (1) Oxyacetylene Torch/Bottles/Hoses
(2) Shovels
- Shallow Beach Diving (1) 25 cfm Diesel-Powered Surface-Supplied Air Compressor & 600' Umbilicals

(1) High-Pressure Air Cylinder (Volume Tank)

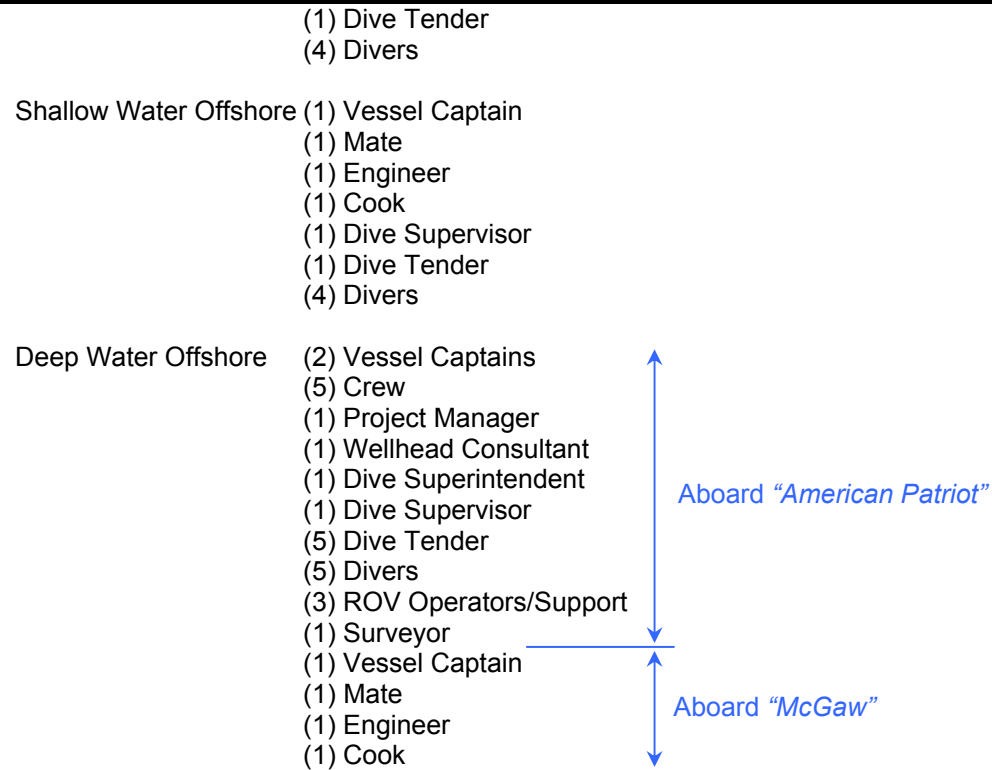
- Shallow Water Offshore (below 60' FSW) (1) "McGaw" 106' Dive Support Vessel
(2) 25 cfm Diesel-Powered Surface-Supplied Air Compressors
(2) High-Pressure Air Cylinders (Volume Tanks)
(1) Lincoln 400A Welding Machine
(1) Broco Torch
(1) 460 gpm Jet Pump & Hoses
(1) 300 cfm Diesel-Powered Tool Air Compressor
(1) 14 gpm Diesel-Powered Hydraulic Power Unit
(2) Offshore Dumpsters (5' x 6' Trash Bins)
(1) Pneumatic and/or Hydraulic Chain Saws
(1) Rigging/Offshore Tool Box
- Deep Water Offshore (1) "American Patriot" 165' Dive Support Vessel
(1) "McGaw" 106' Tug/Anchor Handling Vessel
(2) 120 cfm Diesel-Powered Breathing Air Compressors w/Volume Tanks
(2) Decompression Chambers
(1) ROV & Operating System w/Umbilicals
(1) Lincoln 400A Diesel-Powered Welding Machine
(1) 3-Stage Jet Pump, 600-800 gpm, 450psi
(1) 750 cfm Diesel-Powered Tool Air Compressor
(1) 14 gpm Diesel-Powered Hydraulic Power Unit
(2) Offshore Dumpsters (5' x 6' Trash Bins)
(2) 125kW Diesel-Powered Generators
(1) Surveying Equipment

4 Project Personnel Requirements consist of five (5) categories and one (1) sub-category as described below.

- Basic Beach Crew (1) Demolition/Removal Supervisor
(1) Backhoe Operator
(2) Cutting Torch Operators
(2) Unskilled Laborers
(1) Rigger

- Limited Beach Crew (1) Demolition/Removal Supervisor
(2) Cutting Torch Operators
(2) Unskilled Laborers

- Shallow Beach Diving (1) Dive Supervisor



Appendix B

Marine Wildlife Contingency Plan

MARINE WILDLIFE CONTINGENCY PLAN

INTRODUCTION:

The California State Lands Commission (CSLC) is proposing the removal of hazards located at twenty-one sites along the Santa Barbara Channel coast. The project consists of removing hazardous structures including corroded steel H beams, steel groins, railroad irons, angle bars, well caissons, well casings, piles, sheet piles, cables, pipelines, pipe frames, and onshore and offshore wellheads, in order to mitigate or eliminate the risks to public health and safety in these areas.

PROJECT DESCRIPTION:

The twenty-one hazard sites are located along the Santa Barbara Channel coast from Gaviota to the Ventura River mouth. Table 1-1 (Appendix A) summarizes the proposed project sites including hazard types, locations, method of removal, site access route, staging area, and approximate project duration. The hazard removal activities will be scheduled to minimize impacts to sensitive species to the extent feasible.

PURPOSE OF THE PLAN:

This Marine Wildlife Contingency Plan (Plan) has been prepared to reduce the potential of adverse impacts to marine wildlife resources associated with the CSLC Santa Barbara Channel Hazards Removal Program. This plan includes the following items:

- Methods for avoidance of sensitive species of marine wildlife species such as sea otters, known or potentially existing within the work site;
- To the extent feasible, scheduling of offshore work activities to avoid the migration season of gray whales (mid-November – mid-June);
- Methods to minimize the construction corridor (impact area) and minimize turbidity;
- Guidelines and appropriate agency notification procedures for injury to sensitive marine wildlife species;
- Guidelines to avoid sensitive marine mammals within or adjacent to the work site, and measures to be taken, if avoidance is not feasible and work is delayed;
- Identification of vessel corridors to prevent vessel traffic and anchoring outside of the immediate work site;
- Identification of a vessel anchoring area further offshore from the work site, should severe wind or surf require anchoring in deep water;
- Outline of wildlife monitoring procedures and techniques;
- Travel routes and wildlife survey techniques for vessels traveling to the work site;

- Limiting boat traffic to essential trips only.

The SLC hazards contractor will retain a National Marine Fisheries Service (NMFS) approved marine wildlife biologist to monitor vessels transiting the area. The following guidelines included in the Marine Wildlife Contingency Plan and those listed below shall be followed:

- The monitor shall be aboard the vessel during all times and shall be stationed at a location that provides 360 degrees of visibility around the vessel.
- Support vessels would make every effort to maintain a distance of at least 300 feet from sighted marine wildlife.
- Support vessels would not cross directly in front of migrating whales, or foraging marine wildlife (e.g., foraging dolphins, otters, seals).
- When paralleling whales, support vessels would operate at a constant speed that is not to exceed the speed of the whales.
- Care would be taken to ensure that female whales would not be separated from their calves.
- Support vessels would not be used to herd or drive whales or other marine wildlife from the project area.
- If a marine animal engages in evasive or defensive action, support vessels would drop back until the animal calms or moves out of the area.”

Endangered and threatened marine mammal species, among other animals and plants, are protected by the Endangered Species Act of 1973 (Section 9 and implementing regulations 50 CFR Part 17), which makes it unlawful to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered species, or to attempt to engage in any such conduct. A person violating the provisions of the Act and regulations is subject to a fine and imprisonment. An “endangered species” is any species, which the Secretaries of the Department of the Interior and/or the Department of Commerce determine is in danger of extinction throughout all or a portion of its range. A “threatened species” is any species, which the Secretaries determine is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

In addition, thirty-four of the approximately 111 marine mammals known worldwide have been recorded off the southern California coast. All marine mammals are protected by the Marine Mammal Protection Act of 1972 (MMPA). Sections 101 and 102 of the MMPA prohibit intentional killing or harassment of marine mammals, but allow incidental contact in the course of normal marine vessel operations.

The NMFS is the federal agency responsible for enforcing the MMPA. The United States Fish and Wildlife Service (USFWS) and NMFS are responsible for implementation of the Endangered Species Act. Since operations will occur in state waters, the California Department

of Fish and Game (CDFG) is also involved in an advisory capacity. Any accidental contact with marine wildlife during the course of vessel operations must be promptly reported to the NMFS Stranding Coordinator for the Southwest Region in Long Beach. In addition, the California State Lands Commission will retain an approved marine wildlife monitor aboard the offshore work barge during activities requiring the use of marine vessels.

Removal of the offshore coastal hazards and associated supporting vessel operations has the potential to injure and/or disturb marine wildlife. The highest potential for incidents with marine wildlife would occur during the hazard removal operations and the mobilization and demobilization of work vessels from Port Hueneme or Santa Barbara Harbor to and from the project sites. However, it is anticipated that offshore hazard removal activities will be temporary and completed using the minimal practical quantity of equipment and marine vessels. Therefore, potential impacts to marine wildlife as a result of project implementation are expected to be limited to a short period of time.

MARINE WILDLIFE:

The twenty-one hazard sites are located within the onshore and offshore region of the Santa Barbara Channel (SBC). The SBC is bordered on its seaward margin by the northern Channel Islands and contains a high marine species diversity. In offshore waters of the SBC, the most commonly observed cetaceans are the common dolphin (*Delphinus delphis*), the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), coastal bottlenose dolphin (*Tursiops truncatus*, aka, *T. gilli*), and the California gray whale (*Eshchrichtius robustus*). Gray whales are observed during their annual migratory periods, which are generally from mid November to mid June (Fahy, 2002).

The most common pinnipeds occurring in the Bight include the California sea lion (*Zalophus californianus*), northern fur seal (*Callorhinus uranius*), northern elephant seal (*Mirounga angustirostris*) and harbor seal (*Phoca vitulina*) (Bonnell et al., 1980).

Sea otters (*Enhydra lutris nereis*) occur on the central coast of California. Recent range extensions have brought otters into southern California waters. There is a small population that frequents Cojo Bay, and the kelp beds along the SBC. As such, the likelihood of encountering sea otters during project operations is high.

Sea turtles can also be found within the waters off the southern California coast. The four species of sea turtles that have the potential to occur within the project area include the green sea turtle (*Chelonia mydas*), Pacific ridley sea turtle (*Lepidochelys olivacea*), leatherback turtle (*Dermochelys coriacea*), and loggerhead turtle (*Caretta caretta*) (MFS Globenet Corp./WorldCom Network Services, 2000).

In addition, Pacific sand dollars (*Dendraster excentricus*) were also identified within the offshore project area during the marine biological survey (de Wit, 2000). Sand dollars typically occur in dense populations, partially buried, and feed on suspended material swept by ocean currents.

The following table provides abundance estimates for the marine wildlife species described above. Due to the locations of the proposed project, the species with the greatest potential to be impacted due to their regular occurrence in nearshore areas include: common dolphin, California white-sided dolphin, bottlenose dolphin, sea lion, harbor seal, migrating gray whales, sea otters, and Pacific sand dollar.

Table 1 - Abundance Estimates for Marine Wildlife

Common Name	Scientific Name	Minimum Population Estimate	Current Population Trend
Common dolphin	<i>Delphinus delphis</i>	NP	NP
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	17,475	No long-term trends suggested
Coastal bottlenose dolphin	<i>Tursiops truncatus</i> , aka <i>T. gilli</i>	154	Not known
California gray whale	<i>Eshchrichtius robustus</i>	24,477	Increasing
California sea lion	<i>Zalophus californianus</i>	109,854	Unable to determine
Stellar sea lion	<i>Eumetopias jubatus</i>	31,005	Increasing
Northern fur seal	<i>Callorhinus uranius</i>	848,539	Depleted
Northern elephant seal	<i>Mirounga angustirostris</i>	51,625	Increasing
Harbor seal	<i>Phoca vitulina</i>	27,962	Increasing
California sea otter	<i>Enhydra lutris nereis</i>	2,359	Increasing
green turtle	<i>Chelonia mydas</i>	1,000*	Increasing
Pacific olive ridley turtle	<i>Lepidochelys olivacea</i>	350,000*	Increasing
Leatherback turtle	<i>Dermochelys coriacea</i>	985*	Decreasing
Loggerhead turtle	<i>Caretta caretta</i>	1,000*	Stable
Pacific sand dollar	<i>Dendraster excentricus</i>	NP	NP

Estimates provided by National Marine Fisheries Service Website- Stock Assessment Program, 2000.

* Estimates provided by NMFS within "Our Living Oceans" (1999). Estimates are based on number of current numbers of nesting females.

NP Information not provided by NMFS

Cetaceans

Cetaceans are transient, and move through the Southern California waters regularly. Species of cetaceans that are found in the SBC that may be encountered during the hazard removal operations are listed in the following Table 2. In addition to the cetacean species listed in Table 2, the following species are occasionally or rarely found in the SBC, and as such are unlikely to be encountered during project operations:

- Sei whale (E) (*Balaenoptera borealis*)
- Killer whale (R) (*Orcinus orca*)
- Sperm whale (E) (*Physeter macrocephalus*)
- Bryde's whale (*Balaenoptera edeni*)
- Northern right whale (*Balaena glacialis*, aka, *Eubalaena glacialis*) (E)
- Harbor porpoise (*Phocoena phocoena*)
- False killer whale (*Pseudorca crassidens*)

- Cuvier's beaked whale (*Ziphius cavirostris*)
- Baird's Beaked whale (*Berardius bairdii*)
- Hubb's beaked whale (*Mesoplodon carlhubbsi*)
- Blainville's beaked whale (possible visitor) (*Mesoplodon densirostris*)
- Bering Sea beaked whale (possible visitor) (*Mesoplodon stejnegeri*)
- Dwarf sperm whale (possible visitor) (*Kogia simus*)
- Pygmy sperm whale (*Kogia breviceps*)
- Striped dolphin (*Stenella coeruleoalba*)
- Spinner dolphin (possible visitor) (*Stenella longirostris*)
- Spotted dolphin (possible visitor) (*Stenella attenuata*)
- Rough-toothed dolphin (possible visitor) (*Steno bredanensis*)

In nearshore waters the most common cetaceans to occur are represented by the following three species of odontoceti (the toothed whales): common dolphin, Pacific white-sided dolphin, bottlenose dolphin; and one species of mysteceti (the baleen whale): California gray whale. With the exception of these four cetacean species, which are described in greater detail in the following paragraphs, the cetacean species listed in Table 2 and the above list are more likely to be encountered in waters further offshore (i.e., middle of the SBC and surrounding the Channel Islands). All of the offshore hazards, with the exception of Site No. 24, are located within shallow areas that are unlikely for cetaceans to be impacted by project activities. However, the potential does exist for any of the above listed cetacean species to occur within any of the project sites, or to be encountered by vessels traveling to and from the project sites.

Odontoceti

Pacific coast common dolphin populations are stable at a minimum population size of 184,821 with about 25,000 occurring in the SBC (Leatherwood et al., 1987). Common dolphins are found in large pods in the SBC and are likely to occur within the project site. Pacific coast white-sided dolphin (distributed along the coasts of California, Oregon, and Washington) populations are at a minimum population size of 17,475 (NOAA, 2000). Pacific coast white-sided dolphins frequent deep water foraging areas, but may move into nearshore areas in search of prey. The bottlenose dolphin population has been tentatively separated into a coastal form and offshore form. The coastal form is found primarily within 0.6 mile of shore and often enters the surf zone, bays, inlets and river mouths (Leatherwood et al., 1987). The coastal bottlenose dolphin minimum population estimate is 154 (NOAA, 2000). This species is commonly observed along the coast and is the most likely cetacean to occur in the vicinity of the project site.

Dolphins can usually be spotted from a distance due to the commotion and splashing created as they travel through the water making aerial leaps. They will often "run" with a boat leaping from the water, or riding the bow or stern waves. Should they ride the boat waves or frolic near the vessel, the best strategy is to slow down and keep a steady course until they lose interest.

Mysteceti

Minke whale favor shallow water and venture near shore more often than other baleen whales (Watson, 1981). They also seem to be curious about ships and approach moving vessels. The minimum population estimate for Minke whales is approximately 440 (NOAA, 2000). The eastern North Pacific gray whale minimum population size is about 24,477 (NOAA, 2000), exceeding historic (1846) population estimates of 15,000 to 20,000 (NOAA; 1993, 1996). The gray whale population growth rate was about 3.3 percent per year between 1968 and 1988 (NOAA, 1993), and following three years of review, was removed from the endangered species list on June 15, 1994. Gray whales are observed during their annual migratory periods, which extend from November to June (Fahy, 2002), and may enter the surf zone, or subtidal areas.

Pinnipeds

Six of the 36 species of pinnipeds known worldwide occur off the Southern California coast. Four are eared seals (family Otariidae) and two are earless seals (family Phocidae). California sea lion, harbor seal, and northern elephant seal are the most likely to occur within the project site. Of these three species, California sea lions and harbor seals are the most likely to occur due to the proximity of many of the project areas to consistent harbor seal haul-out sites. The remaining three pinniped species (Guadalupe fur seal, northern fur seal, Steller sea lion) are more likely to be encountered in waters further from the shore (i.e., middle of the Santa Barbara Channel, at the Channel Islands, etc.) than where the majority of the hazard removal project activities would occur. However, these species may be encountered during project activities performed at the deep offshore Site No. 24. The Channel Islands, most notably San Miguel Island, serve as rookeries for all the above-mentioned pinnipeds, except the Guadalupe fur seal.

Otariidae

The species of Otariidae that occur within the Southern California Bight are: Guadalupe fur seal, northern fur seal, Steller sea lion, and California sea lion. The California sea lion minimum population size on the Pacific coast is 109,854 (NOAA, 2000). California sea lions occur frequently along the coastline of Southern California. They may enter the surfzone while foraging, and, as such, are the most likely of the eared seals to be encountered within the project site.

Table 2. Marine Wildlife Species and Periods of Occurrence⁽¹⁾

Species	Month of Occurrence											
	J	F	M	A	M	J	J	A	S	O	N	D
California gray whale (<i>Eschrichtius robustus</i>)												
Fin whale (<i>Balaenopter physalus</i>) (E)												
Minke whale (<i>Calaeloptera acutorostrata</i>) (R)												
Blue whale (<i>Balaenoptera musculus</i>) (E)												
Humpback whale (<i>Megaptera novaeangliae</i>) (E,R)												
Common dolphin (<i>Delphinus delphis</i>) ⁽²⁾												
Northern right-whale dolphin (<i>Lissodelphis borealis</i>)												
Pacific white-sided dolphin (<i>Lagenorhynchus obliquidens</i>) ⁽³⁾												
Risso's dolphin (<i>Grampus griseus</i>)												
Dall's porpoise (<i>Phocoenoides dalli</i>) ⁽²⁾												
Bottlenose dolphin (<i>Tursiops truncatus</i>)												
Short-finned pilot whale (<i>Globicephala macrorhynchus</i>)												
California sea lion (<i>Zalophus californianus</i>)												
Northern fur seal (<i>Callorhinus ursus</i>) ⁽⁴⁾												
Northern elephant seal (<i>Mirounga angustirostris</i>) ⁽⁵⁾												
Pacific harbor seal (<i>Phoca vitulina</i>)												
Guadalupe fur seal (<i>Arctocephalus townsendi</i>) (T) ⁽⁶⁾												
Northern (Steller) sea lion (<i>Eumetopias jubatus</i>) (T) ⁽⁶⁾												
Southern sea otter (<i>Enhydra lutris</i>) ⁽⁷⁾												
Green Sea Turtle (<i>Chelonia mydas</i>) ⁽⁸⁾												
Pacific Ridley Sea Turtle (<i>Lepidochelys olivacea</i>) ⁽⁸⁾												
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>) ⁽⁸⁾												
Loggerhead Sea Turtle (<i>Caretta caretta</i>) ⁽⁸⁾												

Relatively uniform distribution



As seasonally described



(E) Federally listed Endangered species.

(R) Rare species in project area.

(T) Federally listed Threatened species.

(1) Where seasonal differences occur, individuals may also be found in the "off" season. Also, depending on the species, the numbers of abundant animals present in their "off" season may be greater than the numbers of less common animals in their "on" season.

(2) Winter-Spring distribution is mostly south of Pt. Conception.

(3) Spring-Summer distribution is mostly south of Pt. Conception.

(4) Only a small % occurs over continental shelf (except near San Miguel rookery, May-November).

(5) Common near land during winter breeding season and spring molting season.

(6) Now very rare in area.

(7) Only nearshore (diving limit 30 m). Only small numbers south of Pt. Conception.

(8) Rarely encountered, but may be present year-round. Greatest abundance during July through September.

Sources: Bonnell and Dailey (1993), NOAA (2000).

Phocidae

Both of the species of Phocidae that are known to occur within the southern California coast live and breed within the Southern California Bight. The northern elephant seal minimum population estimate size is about 51,625 and is increasing (NOAA, 2000). Northern elephant seal maintain haul-out sites along the central and northern California coast, as well as on the Channel Islands. The Pacific harbor seal minimum population size in California is about 27,962 and is increasing (NOAA, 2000). Like all the other pinnipeds occurring off Southern California, Pacific harbor seals also maintain haul-out sites on the mainland and the Channel Islands on which they pup and breed (NOAA, 2002). There are several haul-out areas in the project region, and harbor seals may be sighted throughout the year. Specifically, site No. 19 is located within a seal sanctuary and rookery. In addition, harbor seals forage in nearshore waters, and have been observed within the surf zone. As such, harbor seals are the most likely of the earless seals to be encountered within the project site.

Fissipeds

The sea otter is the only species of marine fissiped. Historically the range of sea otters extended from the northern islands of the Japanese Archipelago northeast along Alaska and southward along North America to Baja California (Dailey et al., 1993). The sea otter was nearly extirpated by the fur trade during the 18th and 19th centuries. The current range is restricted to remnant populations within the waters off the coast of Alaska and California. The population off the coast of California has shown an overall increase since 1914, with the exception of a decline from 1974 through 1983 (see Appendix D – Marine Biological Pipeline Survey). The population size off the coast of California is approximately 2,400 animals, and is increasing at the rate of 5-7 percent per year, with the primary range being along the coast of central California. The sea otter is expanding its range southward along the coast, including a recent expansion south of Point Conception into the Santa Barbara area. Sea otters are occasionally reported within the project region. Sea otters prefer rocky shorelines and water depths of about 66 feet, which commonly support kelp beds. They feed on benthic macroinvertebrates including: clams, crabs, abalone, sea urchins, and sea stars (Department of the Navy, 2000).

Based on previous surveys, individuals on the southern extreme of the range are independent males and non-breeding adults (LaRoe et al., 1995), and are present mostly during the months of December through April. Otters begin to move northward in May of each year. The lowest numbers of otters occurs during the fall months. However, due to the documented presence of sea otters within the project region, sea otters may be encountered during project operations.

Sea Turtles

Sea turtles occur within the waters off the southern California coast, and as such, could potentially occur within the project sites. Populations of marine turtles have been greatly reduced due to over harvesting and loss of nesting sites in coastal areas. Sea turtles breed at

sea and the females return to their natal beaches to lay their eggs. Female turtles can nest several times in a season but at two to three-year intervals. The eggs, after being laid in the sand, hatch in about two months; and the young instinctively head for the sea (MFS Globenet Corp./WorldCom Network Services, 2000). Sea turtles are more common off the coast of southern California than central California. There is the potential that sea turtles could be encountered during project operations, although sightings are generally rare, and contact during project operations is not considered likely.

Green Sea Turtle

Generally, green sea turtles occur worldwide in waters above 20° C (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles have been reported as far north as Redwood Creek in Humboldt County and off the coasts of Washington, Oregon, and British Columbia (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). The green sea turtle is thought to nest on the Pacific coasts of Mexico, Central America, South America, and the Galapagos Islands. There are no known nesting sites along the west coast of the U.S., and the only known nesting location in the continental U.S. is on the east coast of Florida (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles are sighted year-round in marine waters off the southern California coast, with the highest concentrations occurring during July through September (NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles are herbivores, feeding on algae and sea grasses, but also eat fish and invertebrates (e.g., sardines, anchovies, jellies, mollusks, worms, etc.) (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000).

Pacific Ridley Sea Turtle

The Pacific Ridley or olive sea turtle is distributed circumglobally and is regarded as the most abundant sea turtle in the world. Within the east Pacific, the normal range of Pacific Ridley sea turtles is mainly from Baja California to Peru (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). However, they have been reported as far north as Washington, Oregon, and are a rare visitor to the California coast (MFS Globenet Corp./WorldCom Network Services, 2000). Major nesting beaches are located on the Pacific coasts of Mexico and Costa Rica (MFS Globenet Corp./WorldCom Network Services, 2000). The population on Pacific beaches in Mexico has declined from an estimated 10 million adults in 1950 to less than 80,000 in 1983 due to excessive over-harvesting (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000). The Pacific Ridley sea turtle is omnivorous, feeding on fish, crabs, shellfish, jellyfish, sea grasses and algae (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000), and may dive to considerable depths (260 to 980 feet) (NAWCWPNS Point Mugu Sea Range, 2000).

Leatherback Sea Turtle

Leatherback sea turtles have been sighted as far north as Alaska and as far south as Chile (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). Their extensive latitudinal range is due to their ability to maintain warmer body temperatures in colder waters (MFS Globenet Corp./WorldCom Network Services, 2000). Leatherback sea turtles are omnivores, but feed principally on soft prey items such as jellyfish and planktonic chordates (e.g., salps) (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000).

The population of leatherback sea turtles in the eastern Pacific is estimated at 8,000 nesting females and is concentrated in western Mexico, Central America, and northern Peru. No nesting occurs within U.S. beaches (MFS Globenet Corp./WorldCom Network Services, 2000).

Leatherback sea turtles are the most common sea turtle off the west coast of the U.S. (NAWCWPNS Point Mugu Sea Range, 2000; Channel Islands National Marine Sanctuary, 2000) and are most abundant off the U.S. west coast from July to September. Their occurrences coincide with the yearly establishment of the 18 to 20 isotherm (around the month of July). In addition, it has been noticed that their occurrence off the U.S. west coast is "two pronged" with sightings occurring in northern California, Oregon, Washington, and southern California, with few sighting occurring along the intermediate coastline. In southern California waters, leatherback turtles are most common during the months of July through September, and in years when water temperatures are above normal (NAWCWPNS Point Mugu Sea Range, 2000).

Loggerhead Sea Turtle

Loggerhead sea turtles primarily occur in subtropical to temperate waters and are generally found over the continental shelf (MFS Globenet Corp./WorldCom Network Services, 2000). Loggerhead sea turtles are omnivorous and feed on a wide variety of marine life including shellfish, jellyfish, squid, sea urchins, fish, and algae (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, Channel Islands National Marine Sanctuary, 2000).

The eastern Pacific population of loggerhead sea turtles breeds on beaches in Central and South America. Southern California is considered to be the northern limit of loggerhead sea turtle distribution (MFS Globenet Corp./WorldCom Network Services, 2000). However, loggerhead sea turtles have stranded on beaches as far north as Washington and Oregon (2000 Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). In addition, in 1978, a loggerhead sea turtle was captured near Santa Cruz Island in southern California (MFS Globenet Corp./WorldCom Network Services, 2000). Loggerhead sea turtle abundance in southern California waters is higher in the winter during warm years than cold years. However,

during the summer months (July through September) abundance is similar in warm and cold years. Juvenile loggerhead turtles may be encountered year round in southern California waters, while the occurrence of adult loggerhead turtles in southern California waters is rare at any time of the year (NAWCWPNS Point Mugu Sea Range, 2000).

Sand Dollars

Pacific sand dollars typically occur in dense populations, partially buried, and feed on suspended material swept by ocean currents. They move towards shore during calm conditions, and move into deeper water during rough conditions. They can be found from Alaska to Baja California, and have been identified during previous marine biological surveys within the project area.

AVOIDANCE OF MARINE WILDLIFE:

Anchoring Plan

The Anchoring Plan for mooring of the primary offshore work vessel will include pre-placement surveys of the pre-designated anchor point locations in order to avoid impacts to hard substrate areas, and sensitive biological resources, including sand-dollar beds where feasible. Once clearance of the anchor zones is established, these positions will be entered into a differential GPS system, and the anchors will be lowered from the work vessel at these locations.

Once offshore activities are complete, the anchors will be recovered by raising the anchor from the sea floor with a crown line (trip line), or other method selected by the contractor, and suspending the anchor above the sea floor as it is returned to the contractor's work vessel. It should be noted that at no time will the contractor be permitted to drag anchors across the sea floor. In the event that identified sand dollar beds cannot be avoided due to confined anchor zone locations (i.e., surrounded by hard substrate) and worker safety issues, some sand dollar beds may be temporarily impacted by project operations.

Marine Vessels

Project vessels will primarily be working and traveling within nearshore waters with the exception of operations conducted at Site No. 24 located in deep waters offshore from Gaviota. As such, the likelihood of project operations encountering species that are more frequently found in deep water, or at the northern Channel Islands, is less than for species frequently encountered in nearshore waters. Likewise, the probability of encountering species that regularly occur within the SBC is greater than species that rarely occur within the SBC.

As discussed above, the marine wildlife most likely to be encountered by work vessels during the decommissioning operations is represented by the following marine mammals: common dolphin, Pacific white-sided dolphin, coastal bottlenose dolphin, California gray whale, California sea lion, harbor seal, and sea otter. The likelihood of encountering these species is greater than for other marine wildlife that occurs within the SBC because these species frequent

nearshore areas and have the potential to enter the nearshore project areas and surf zones in search of prey (sea otter, common dolphin, Pacific white-sided dolphin, California sea lion, and harbor seal) or during seasonal migration (California gray whale).

As previously discussed, California State Lands Commission shall retain an approved marine wildlife monitor aboard the offshore work vessel during activities requiring the use of marine vessels. The marine wildlife monitor will be positioned on the offshore work vessel, in such a way that he/she will have a clear view of the area of ocean that is in the direction of the course of travel, and will be able to observe the waters surrounding the anchor assist tug vessel. In general, vessels will remain at least 1,000 feet (approximately 300 meters) away from marine wildlife to minimize the chance of collision or disturbance. This exceeds the recommended distances set by the National Marine Fisheries Service, which suggests a maximum distance of 100 yards away from whales. If the marine wildlife monitor should sight marine wildlife within the path of any vessel, he/she will report to the work vessel captain who will then immediately notify the appropriate vessel via radio. The vessel would then slow down or change course in order to avoid contact. The marine wildlife monitor shall have the authority to halt any operations, or redirect any vessels, that pose an immediate threat to marine wildlife.

Dolphins can usually be spotted from a distance due to the commotion and splashing created as they travel through the water, often making aerial leaps. They will often “run” with a boat leaping from the water, or riding the bow or stern waves. Should they ride the boat waves or frolic near the vessel, the best strategy is to slow down and keep a steady course until they lose interest.

Generally, pinnipeds (harbor seals, California sea lions etc.) are shy and will not approach boats. Collision at sea is not likely; however, the California sea lion is the only pinniped off the California coast that regularly uses man-made structures such as docks, buoys, oil and gas structures and even slow moving vessels on which to haul-out. These animals may use support vessels as haul-out sites on which to rest between foraging bouts. Every effort to avoid approaching and disturbing these and other marine mammals in the water or at rest should be made. However, in the unlikely event that a sea lion, seal, or other pinniped species is hauled-out in an area where harm may come to the animal, the NMFS shall be consulted for guidance on how to encourage the animal to move from the hazard area without harassment.

Unlike most pinnipeds occurring off the coast of California, the Pacific harbor seal maintains haul-out sites on the mainland, on which they pup and breed. There are several existing haul-outs located in the vicinity of several of the project sites, thus harbor seals may be sighted foraging within the project area during project operations. Human activity could adversely affect hauled-out animals and may be considered harassment.

Due to the documented presence of sea otters in the vicinity of several of the project sites, sea otters may be encountered during project operations. Collision is unlikely because otters are highly visible, and would be expected to move away from project vessels. On-board personnel should be especially watchful as the vessel is placed or repositioned within the project site or anytime sea otters are observed in the area.

The path of migrating whales can be determined even for animals underwater by the distribution of animals on the surface. On-board personnel should be especially watchful as the vessel crosses this path or anytime whales are observed in the area. Vessel operators should be aware that gray whales surface about every 30 seconds to breathe and that some unseen animals may be swimming beneath the surface. To reduce the potential for harassment or collision with marine wildlife discussed above, support vessel operators shall adhere to the following guidelines:

- All offshore vessel traffic associated with the removal activities shall be minimized to the extent feasible during the main migration season of sea otters and gray whales (mid-November to mid-June).
- Support vessels will make every effort to maintain a distance of 1,000 feet from sighted marine wildlife.
- Support vessels will not cross directly in front of migrating whales, or foraging marine wildlife (e.g., foraging dolphins, otters, seals).
- When paralleling whales, support vessels will operate at a constant speed that is not to exceed the speed the whales are traveling at.
- Care will be taken to ensure that female whales will not be separated from their calves.
- Support vessels will not be used to herd or drive whales or other marine wildlife from the project area.
- If a marine animal engages in evasive or defensive action (i.e., whales), support vessels will drop back until the animal calms or moves out of the area.
- In addition, the following measures have been included to further minimize and/or avoid potential impacts to marine wildlife with the potential to occur in the project region:
 - During project operations, vessel operators will make every effort to approach and depart the project area from the south (i.e., perpendicular to the project area). At no time will nearshore lateral vessel movement parallel to the coastline (i.e., east-west) be allowed during project operations. This measure will avoid unnecessary impacts from vessel traffic to kelp beds and associated wildlife located directly east and west of the project area. Additionally, vessel traffic will be limited to essential trips only (e.g., supply runs, crew transport, etc.).
 - As will be indicated in the Anchoring Plan, the pre-plot anchor locations will have been identified for the purposes of the project. The offshore contractor will utilize these approved anchor locations to safely anchor the work vessel. In the event of unsafe sea conditions (i.e., severe wind and surf), the work vessels will either be transported back to the safety of Port Hueneme or Santa Barbara Harbor. The ultimate decision will be made at the discretion of the offshore contractor based upon available storm forecast information and project logistics.

COLLISIONS WITH MARINE WILDLIFE:

Response of Operator Should an Impact Occur

If a collision with marine wildlife occurs, the vessel operator in consultation with the marine wildlife monitor must document the conditions under which the accident occurred, including the following:

- Location of the vessel when the collision occurred (latitude and longitude);
- Date and time;
- Speed and heading of the vessel;
- Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog);
- Species of marine wildlife contacted;
- Whether an observer was standing watch for the presence of marine wildlife; and,
- Names of vessel, operator (the company), and captain or officer in charge of the vessel at time of accident.

If safe to do so, the vessel should stop after a collision. The vessel is not obliged to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then communicate by radio or telephone all details to the vessel's base of operations. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NMFS, Southwest Region, Long Beach.

Alternatively, the vessel captain may contact the NMFS Stranding Coordinator directly using the marine operator to place the call or directly from an onboard telephone, if available.

It is unlikely that the vessel will be asked to stand by until NMFS or CDFG personnel arrive, but this will be determined by the Stranding Coordinator. Under the MMPA, the vessel operator is not allowed to aid injured marine wildlife or recover the carcass unless requested to do so by the NMFS Stranding Coordinator.

Notification

Collisions with marine wildlife will be reported promptly to the Stranding Coordinator, NMFS. From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate.

Although the NMFS has primary responsibility for marine mammals in both state and federal waters, the CDFG should also be advised that an incident has occurred in state waters affecting a protected species. Reports should be communicated to the federal and state agencies listed below:

Federal-

Joe Cordero, Stranding Coordinator
Southwest Region
National Marine Fisheries Service
Long Beach, California 90802-4213
(310) 980-4017

State-

Enforcement Dispatch Desk
California Department of Fish and Game
Long Beach, California 90802
(562) 590-5132
(562) 590-5133

REFERENCES

- Bonnell, M. L., M. O. Pierson, T. P. Dohl, R. C. Guess, K. T. Briggs, E. W. Chu, D. B. Lewis, and G. L. Hunt, Jr. 1980. Summary of Marine Mammal and Seabird Surveys of the Southern California Bight Area, 1975 – 1978. Volume II – Synthesis of Findings. A report prepared for the US Department of the Interior, Bureau of Land Management, Pacific OCS Office, Los Angeles, CA. Contract No. AA550-CT7-36.
- Dailey, M. D., D. J. Reish, and J. W. Anderson (eds.). 1993. Ecology of the Southern California Bight – A Synthesis and Interpretation. University of California Press, Berkeley.
- de Wit, Ray, L.A. deWit, Consultant, personal communication, 2002.
- Department of the Navy. 2000. NAWCWPNS Point Mugu Sea Range Draft Environmental Impact Statement.
- Fahy, Christina. National Oceanic and Atmospheric Administration. Personal communication, February 2002.
- Fluharty, Marilyn. California Department of Fish and Game. Personal communication. 2002.
- LaRoe, E.T, G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac eds. 1995. *Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals and Ecosystems*. U.S. Department of the Interior, National Biological Service, Washington, D.C.
- Leatherwood, Stephen, Brent S. Stewart and Pieter A. Folkens. 1987. *Cetaceans of the Channel Islands National Marine Sanctuary*. Prepared for the National Oceanic and Atmospheric Administration.
- MFS Globenet Corp./WorldCom Network Services. 2000. MFS Globenet Corp./WorldCom Network Services Fiber Optic Cable Project Final Environmental Impact Report, Volume I.
- National Oceanic and Atmospheric Administration. 2000. Draft Environmental Impact Statement for Channel Islands Marine Sanctuary.
- . 1993. *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1993*.
- . 1996. *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1995*.
- Watson, L. 1981. *Sea Guide to the Whales of the World*. E.P. Dutton, New York, N.Y.

Appendix C
Divecon Oil Spill Contingency Plan
Onshore and Offshore

OIL SPILL CONTINGENCY PLAN - ONSHORE

Oil Spill Sources

- Surface crude oil
- Creosote soaked timbers, or other contaminant
- Leakage or spillage of fuel or lubricants from the equipment used during abandonment activities

Oil Spill Response Team

Divecon will maintain an onsite spill response team to handle small spills (less than five barrels) and to provide immediate response to large spills during hazards recovery. The onsite response team is responsible for reporting, containment, and clean up of any small spills using onsite equipment and procedures. In the unlikely event of a release into the water beyond the capabilities of the onsite team, Clean Seas will provide additional spill response personnel and equipment.

The onsite team is trained to rapidly and effectively respond to any reported spill. The team is supervised by the Divecon Supervising Manager (or other appointed supervisor) and consists of select employees from the vessel crew. The team supervisor will request additional response personnel and equipment from Clean Seas if necessary.

Onsite Response Equipment

The Table below lists response equipment available at the project site during abandonment operations.

Equipment Available for Minor Onshore Spill Response Table

Item	Quantity	Location
Sorbent Pads	5 Bales	Beach Ops
30"x60"x6" Plastic Pans/Tubs	Four	Beach Ops
50' sorbent boom section	Two	Beach Ops

Notification

An important step in the response procedure is notification of others of the incident. Notification is essential to activate the response organizations, alert company management, obtain assistance and cooperation of agencies, mobilize resources, and comply with local, state and federal regulations.

The order of notification is based on the premise that the parties who can render assistance in controlling or minimizing the impacts of an incident be notified before those that are remote from the incident. The notification process encompasses the following categories:

- Company notification/onsite spill response team activation
- Oil spill cooperative (Clean Seas)
- Agency notification
- Cleanup contractors (if required)
- Notification of other interested parties
- Periodic progress updates and reports (if necessary)

Emergency Agency Notification Matrix Table

Type of Emergency	Agencies to be Notified	Telephone	Notification Criteria	Notification Time frame	Information to Report
Oil Spill to Ocean	California Office of Emergency Services	(800) 852-7550	All spills to water	Immediately	1. Location of release or threatened release 2. Qty released
	National Response Center	(800) 424-8802			
	USCG - Santa Barbara	(805) 962-7430			
	State Lands Commission	(562) 590-5201			
	California Division of Oil and Gas	(805) 937-7246			
	California Department of Fish and Game (OSPR)	(916) 445-0045			
	Minerals Management Service (spill entering federal waters only)	(805) 389-7560			
Medical Emergencies	Fire Department/ Ambulance	911	Medial Assistance and / or transport required	ASAP	1. Type of injury 2. Location 3. Condition 4. Action taken 5. No. of victims
	CalOSHA (Call local # first)	(805) 654-4581 (415) 737-2932		As required	

USCG.....US Coast Guard

OSPR.....Office of Oil Spill Prevention and Response

CalOSHACalifornia Occupational Safety and Health Administration

Company Notification

Divecon requires that all emergencies be brought to the attention of Divecon management. The Onsite Supervising Manager will notify by radio or telephone the Local On-Scene Commander (Qualified Individual) with an initial assessment of the extent and nature of the spill. The Area Incident Commander will then inform Divecon management of the incident and activate additional company resources if necessary.

On-Scene Commander / Qualified Individual			
To be determined	Work: _____ Home: _____	To be determined	Work: _____ Home: _____

Mobile:	Mobile:
Pager:	Pager:

Agency Notifications

The Lempert-Keene Seastrand Oil Spill Prevention and Response Act (SB 2040) requires notification of the California Office of Emergency Services when oil spills occur or threaten to occur from facilities, vessels, or pipelines into California marine waters. The California Code of Regulations implementing SB 2040 requires that the specific information shown in the Table below is given to the agencies when making notifications.

Information Checklist Table

1.	Name of Reporter
2.	Facility Name and Location
3.	Date and Time of Spill
4.	Cause (if known - - (Don't Speculate) and Location of Spill
5.	Estimate of the volume of oil, or contaminant, spilled and the volume at immediate risk of spillage
6.	Material spilled (e.g. crude oil) and any inhalation hazards or explosive vapor hazards, if known
7.	Prevailing Sea Conditions: <ul style="list-style-type: none"> ▪ Wave Height ▪ Size and Appearance ▪ Direction of slick movement ▪ Speed of Movement, if known
8.	Prevailing Sea Conditions: <ul style="list-style-type: none"> ▪ Wind Speed ▪ Wind Direction ▪ Air Temperature
9.	Measures Taken or Planned by Personnel on Scene: <ul style="list-style-type: none"> ▪ For containment ▪ For cleanup
10.	Current condition of the facility
11.	Any Casualties

NOTE: *When making reports, record the agency, name of person contacted, and the date and time of notification. Reporting of a spill shall NOT be delayed solely to gather all the information noted above.*

All actions, including agency notification, should be recorded on the Event Log. A regulatory agency address directory is provided in the Table below.

Addresses of Regulatory Agencies Table

National Response Center US Coast Guard Headquarters 2100 Second Street SW Washington, DC 20593	California Office of Emergency Services 2800 Meadowview Road Sacramento, CA 95832
Minerals Management Service Pacific OCS Regional Office & Camarillo District Office 770 Paseo Camarillo Camarillo, CA 93010	California Division of Safety and Health 2100 East Katella Suite 140 Anaheim, CA 92806
US Coast Guard Commander, Los Angeles Group/MSO 165 North Pico Avenue Long Beach, CA 90802-1096	State Lands Commission Long Beach Office 200 Oceangate, 12 th Floor Long Beach, CA 90802
US Department of Transportation 1515 West 190 th Street Suite 555 Gardena, CA 90248	California Division of Oil and Gas Santa Maria Office 5075 South Bradley Road Suite 221 Santa Maria, CA 93445
National Marine Fisheries Service 501 West Ocean Boulevard Suite 4200 Long Beach, CA 90802-4313	California Department of Fish and Game 330 Golden Shore Suite 50 Long Beach, CA 90802

The California Office of Emergency Services and the National Response Center further assure essential agency notifications since they will notify related state and federal agencies.

If a spill impacts navigable waters, notification of the National Response Center is mandatory and normally results in simultaneous notification of the US Coast Guard. However, it is recommended that a call be made to the local US Coast Guard office in Santa Barbara at (805) 962-7430 to expedite their response. If you do not reach anyone in Santa Barbara, contact the office in Long Beach at (562) 980-4444.

Cooperative Notification

Clean Seas maintains both large and small oil spill response vessels that are equipped with oil spill containment and recovery equipment. Additional equipment is located at Clean Seas' storage yard and pre-staged at various locations within their area of interest. In the event a spill enters or threatens to enter the ocean; notification of Clean Seas will make available the resources of Clean Seas. Mr. Clean II, a dedicated oil spill response vessel, is stationed at the Santa Barbara Harbor and can be mobilized to the project site within two hours, once notified. For the Santa Barbara Hazards Removal Project, State Lands will have established a cooperative agreement with Clean Seas.

To notify Clean Seas, call the Clean Seas General Manager at the number below and provide him/her with the information listed in the Information Checklist Table.

**CLEAN SEAS 24-HOUR
(805) 684-3838**

ONSHORE SPILL SCENARIOS AND RESPONSE PROCEDURES

Onshore Spill Scenario - Minor Oil Spill (< five barrels)

This scenario consists of spillage of oil or oily water into the ocean. Response will consist of deployment of an absorbent boom and sorbent pads stored on the DSV. The following Table lists response procedures for a minor offshore spill.

Minor Onshore Oil Spill Response Procedures Table

Responsible Person	Action
Supervising Mgr	<ul style="list-style-type: none">▪ Assess the spill size and type of material spilled▪ Take action to contain the spill and prevent further spillage▪ Remove contaminated soil/sand and place in plastic tubs.▪ Inform the project superintendent as soon as possible as to the source of the spill, type of material spilled and status of control operations▪ Maintain surveillance of source and any oil slick▪ Assist the onsite response team in implementing clean up procedures including deployment of the absorbent boom and sorbent pads and proper storage and disposal of oily debris and sorbent pads

Minor Onshore Oil Spill Response Procedures - continued

Responsible Person	Action
Supervising Mgr	<ul style="list-style-type: none">▪ Account for all personnel and ensure their safety▪ Determine if there is a threat of fire or explosion▪ If a threat of fire or explosion exists, suspend all control and/or response operations until the threat is eliminated▪ Assess the spill situation to determine the status of response operations, estimate spill volume, estimate speed and direction of oil slick movement and determine resource needs▪ Determine if Clean Seas should be notified▪ Notify the Office Support Staff
Supervising Mgr, Office Support Staff	<ul style="list-style-type: none">▪ Mobilize the onsite spill response team▪ Notify appropriate agencies including:▪ State Lands Commission (562) 590-5201▪ California Office of Emergency Response (800) 852-7550▪ California Department of Fish and Game (562) 590-5132▪ National Response Center (800) 424-8802▪ Supervise response and clean up operations▪ File written reports to appropriate agencies

Onshore Spill Scenario - Major Oil Spill (> five barrels)

Based upon the description of the materials to be recovered onshore and in the tidal zone, it is not anticipated that a major oil spill is likely to occur.

OIL SPILL CONTINGENCY PLAN - OFFSHORE

Oil Spill Sources

- Sub-surface crude oil
- Surface crude oil
- Leakage or spillage of fuel or lubricants from the work vessels and/or equipment used during abandonment activities

Oil Spill Response Team

Divecon will maintain an onsite spill response team to handle small spills (less than five barrels) and to provide immediate response to large spills during abandonment operations. The onsite response team is responsible for reporting, containment, and clean up of any small spills using onsite equipment and procedures. In the unlikely event of a release beyond the capabilities of the onsite team, Clean Seas will provide additional spill response personnel and equipment.

The onsite team is trained to rapidly and effectively respond to any reported spill. The team is supervised by the Divecon Supervising Manager (or other appointed supervisor) and consists of select employees from the vessel crew. The team supervisor will request additional response personnel and equipment from Clean Seas if necessary.

Onsite Response Equipment

The Table below lists response equipment available at the project site during abandonment operations.

Equipment Available for Minor Offshore Spill Response Table

Item	Quantity	Location
Sorbent Pads	5 Bales	DSV
Sorbent Boom	600 feet	DSV
Boom Tender Vessel	One	DSV

Notification

An important step in the response procedure is notification of others of the incident. Notification is essential to activate the response organizations, alert company management, obtain assistance and cooperation of agencies, mobilize resources, and comply with local, state and federal regulations.

The order of notification is based on the premise that the parties who can render assistance in controlling or minimizing the impacts of an incident be notified before those that are remote from the incident. The notification process encompasses the following categories:

- Company notification/onsite spill response team activation
- Oil spill cooperative (Clean Seas)
- Agency notification
- Cleanup contractors (if required)
- Notification of other interested parties
- Periodic progress updates and reports (if necessary)

Emergency Agency Notification Matrix Table

Type of Emergency	Agencies to be Notified	Telephone	Notification Criteria	Notification Time frame	Information to Report
Oil Spill to Ocean	California Office of Emergency Services National Response Center USCG - Santa Barbara State Lands Commission California Division of Oil and Gas California Department of Fish and Game (OSPR) Minerals Management Service (spill entering federal waters only)	(800) 852-7550 (800) 424-8802 (805) 962-7430 (562) 590-5201 (805) 937-7246 (916) 445-0045 (805) 389-7560	All spills to water	Immediately	1. Location of release or threatened release 2. Qty released
Medical Emergencies	Fire Department/ Ambulance CalOSHA (Call local # first)	911 (805) 654-4581 (415) 737-2932	Medical Assistance and / or transport required	ASAP As required	1. Type of injury 2. Location 3. Condition 4. Action taken 5. No. of victims

USCG.....US Coast Guard
 OSPR.....Office of Oil Spill Prevention and Response
 CalOSHACalifornia Occupational Safety and Health Administration

Company Notification

Divecon requires that all emergencies be brought to the attention of Divecon management. The Onsite Supervising Manager will notify by radio or telephone the Local On-Scene Commander (Qualified Individual) with an initial assessment of the extent and nature of the spill. The Area Incident Commander will then inform Divecon management of the incident and activate additional company resources if necessary.

On-Scene Commander / Qualified Individual			
To be determined	Work:	To be determined	Work:
	Home:		Home:
	Mobile:		Mobile:
	Pager:		Pager:

Agency Notifications

The Lempert-Keene Seastrand Oil Spill Prevention and Response Act (SB 2040) requires notification of the California Office of Emergency Services when oil spills occur or threaten to occur from facilities, vessels, or pipelines into California marine waters. The California Code of Regulations implementing SB 2040 requires that the specific information shown in the Table below is given to the agencies when making notifications.

Information Checklist Table

1. Name of Reporter
2. Facility Name and Location
3. Date and Time of Spill
4. Cause (if known - - (Don't Speculate) and Location of Spill
5. Estimate of the volume of oil spilled and the volume at immediate risk of spillage
6. Material spilled (e.g. crude oil) and any inhalation hazards or explosive vapor hazards, if known
7. Prevailing Sea Conditions:
▪ Wave Height
▪ Size and Appearance
▪ Direction of slick movement
▪ Speed of Movement, if known
8. Prevailing Sea Conditions:
▪ Wind Speed
▪ Wind Direction
▪ Air Temperature
9. Measures Taken or Planned by Personnel on Scene:
▪ For containment
▪ For cleanup
10. Current condition of the facility
11. Any Casualties

NOTE: *When making reports, record the agency, name of person contacted, and the date and time of notification. Reporting of a spill shall NOT be delayed solely to gather all the information noted above.*

All actions, including agency notification, should be recorded on the Event Log. A regulatory agency address directory is provided in the Table below.

Addresses of Regulatory Agencies Table

National Response Center US Coast Guard Headquarters 2100 Second Street SW Washington, DC 20593	California Office of Emergency Services 2800 Meadowview Road Sacramento, CA 95832
Minerals Management Service Pacific OCS Regional Office & Camarillo District Office 770 Paseo Camarillo Camarillo, CA 93010	California Division of Safety and Health 2100 East Katella Suite 140 Anaheim, CA 92806
US Coast Guard Commander, Los Angeles Group/MSO 165 North Pico Avenue Long Beach, CA 90802-1096	State Lands Commission Long Beach Office 200 Oceangate, 12 th Floor Long Beach, CA 90802
US Department of Transportation 1515 West 190 th Street Suite 555 Gardena, CA 90248	California Division of Oil and Gas Santa Maria Office 5075 South Bradley Road Suite 221 Santa Maria, CA 93445
National Marine Fisheries Service 501 West Ocean Boulevard Suite 4200 Long Beach, CA 90802-4313	California Department of Fish and Game 330 Golden Shore Suite 50 Long Beach, CA 90802

The California Office of Emergency Services and the National Response Center further assure essential agency notifications since they will notify related state and federal agencies.

If a spill impacts navigable waters, notification of the National Response Center is mandatory and normally results in simultaneous notification of the US Coast Guard. However, it is recommended that a call be made to the local US Coast Guard office in Santa Barbara at (805) 962-7430 to expedite their response. If you do not reach anyone in Santa Barbara, contact the office in Long Beach at (562) 980-4444.

Based on the spill trajectory, if the spill is a threat to the shoreline, the appropriate fire department and lifeguard stations should be notified. This would not normally be an immediate notification.

Cooperative Notification

Clean Seas maintains both large and small oil spill response vessels that are equipped with oil spill containment and recovery equipment. Additional equipment is located at Clean Seas' storage yard and pre-staged at various locations within their area of interest. In the event a spill enters or threatens to enter the ocean; notification of Clean Seas will make available the resources of Clean Seas. Mr. Clean II, a dedicated oil spill response vessel, is stationed at the Santa Barbara Harbor and can be mobilized to the project site within two hours, once notified. For the Santa Barbara Hazards Removal Project, State Lands will have established a cooperative agreement with Clean Seas.

To notify Clean Seas, call the Clean Seas General Manager at the number below and provide him/her with the information listed in the Information Checklist Table.

**CLEAN SEAS 24-HOUR
(805) 684-3838**

OFFSHORE SPILL SCENARIOS AND RESPONSE PROCEDURES

Offshore Spill Scenario - Minor Oil Spill (< five barrels)

This scenario consists of spillage of oil or oily water into the ocean. Response will consist of deployment of an absorbent boom and sorbent pads stored on the DSV. The following Table lists response procedures for a minor offshore spill.

Minor Offshore Oil Spill Response Procedures Table

Responsible Person	Action
Supervising Mgr	<ul style="list-style-type: none">▪ Assess the spill size and type of material spilled▪ Take action to contain the spill and prevent further spillage▪ Inform the project superintendent as soon as possible as to the source of the spill, type of material spilled and status of control operations▪ Maintain surveillance of source and oil slick▪ Assist the onsite response team in implementing clean up procedures including deployment of the absorbent boom and sorbent pads and proper storage and disposal of oily debris and sorbent pads

Minor Offshore Oil Spill Response Procedures - continued

Responsible Person	Action
Supervising Mgr	<ul style="list-style-type: none"> ▪ Account for all personnel and ensure their safety ▪ Determine if there is a threat of fire or explosion ▪ If a threat of fire or explosion exists, suspend all control and/or response operations until the threat is eliminated ▪ Assess the spill situation to determine the status of response operations, estimate spill volume, estimate speed and direction of oil slick movement and determine resource needs ▪ Determine if Clean Seas should be notified ▪ Notify the Office Support Staff
Supervising Mgr, Office Support Staff	<ul style="list-style-type: none"> ▪ Mobilize the onsite spill response team ▪ Notify appropriate agencies including: ▪ State Lands Commission (562) 590-5201 ▪ California Office of Emergency Response (800) 852-7550 ▪ California Department of Fish and Game (562) 590-5132 ▪ National Response Center (800) 424-8802 ▪ Supervise response and clean up operations ▪ File written reports to appropriate agencies

Offshore Spill Scenario - Major Oil Spill (> five barrels)

Based upon the description of the abandoned condition of the Pauley Well, it is not anticipated that a major oil spill is likely to occur.

Appendix D

Mitigation Monitoring and Reporting Program

APPENDIX D

MITIGATION MONITORING PROGRAM

OVERVIEW

This Mitigation Monitoring Program was developed to ensure that mitigation measures included in the Mitigated Negative Declaration (MND) are fully implemented to reduce environmental impacts to a less than significant level. In addition, the Mitigation Monitoring Program (MMP) complies with the requirements of Public Resources Code 21081.6, which requires the lead agency to adopt a reporting or monitoring program.

The core of this MMP is the attached Implementation Table (Table D-1) listing mitigation measures from the project's MND, implementation timing, documentation required, and the agency responsible for monitoring. The California State Lands Commission (CSLC) will coordinate all hazard removal activities through the construction superintendent and supporting contractors. CSLC will also utilize engineering and environmental consultants to supervise project construction. This MMP is based on the following compliance actions:

- Oversight of construction activities
- Biological monitoring
- Archaeological monitoring

BIOLOGICAL MONITOR

A biological monitor will be designated by the CSLC to be onsite within the onshore and offshore portion of any project site at all times during project operation. The duties of the biological monitor will include, but not be limited to:

1. Become familiar with the intent of each mitigation measure of the MND.
2. Become familiar with this MMP.
3. Conduct surveys for sensitive avifauna (western snowy plover and California least tern) prior to the commencement of excavation activities within the onshore work.
4. Conduct the biological sensitivity briefing for construction employees.
5. Contact the construction superintendent each day to determine the work schedule.
6. Observe all work activities on a daily basis.
7. Issue stop work orders, if required, and ensure, in conjunction with CSLC staff, that non-compliance remedies are fully implemented.
8. Alert CSLC staff to situations requiring temporary shut-downs of the project due to sensitive species sightings.
9. Prepare daily reports.

10. Prepare draft and final reports for submittal to CSLC.

ARCHAEOLOGICAL MONITOR

An archaeological monitor will be designated by the CSLC to be onsite within the onshore portion of the project site at all required times during project operation. The duties of the archaeological monitor will include, but not be limited to:

1. Become familiar with the intent of each archaeological mitigation measure of the MND.
2. Become familiar with this MMP.
3. Conduct surveys in areas of sensitive archaeological resources prior to equipment being moved into the field.
4. Conduct the cultural resource sensitivity briefing for construction employees.
5. Coordinate with the construction superintendent each day to determine the work schedule.
6. Observe all work activities on a daily basis as required.
7. Issue stop work orders, if required, and ensure, in conjunction with CSLC staff, that non-compliance remedies are fully implemented.
8. Alert CSLC staff to situations requiring temporary shut-downs of the project due to cultural resource issues.
9. Prepare daily reports.
10. Prepare draft and final reports for submittal to CSLC.

Table D-1. Mitigation Monitoring Required by California State Lands Commission for Santa Barbara Channel Hazards Removal Program – Implementation Table

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources				
TBio-1	<p>A qualified biologist shall be on-site to monitor the hazard removal sites. The level of monitoring conducted at each site will be dependent on the extent of sensitive resources within the applicable work site. The qualified biologist shall provide the following during project operations:</p> <ul style="list-style-type: none"> • Pre-construction surveys for special-status plant and wildlife species known or potentially existing within the work sites prior to commencing project activities in the area. • Conduct an employee orientation program for all project personnel; and • Monitor all construction activity within 100 feet of wetlands or other designated sensitive habitat areas. 	Throughout the construction period.	Biological Monitoring Sheet	CSLC
TBio-2	Protective fencing shall be installed temporarily around sensitive plant communities and/or other sensitive biological resources that could be impacted during hazard removal activities.	Throughout the construction period	Biological Monitoring Sheet and site photo logs.	CSLC
TBio-3	Work activities shall avoid breeding season (typically April 1-July1) of those sensitive species currently known to exist within or adjacent to the work sites or which are discovered during hazard removal activities.	Throughout the construction period	Site monitoring sheets.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources (Continued)				
TBio-4	To the extent feasible, the use of heavy equipment and vehicles shall be limited to existing roadways and defined staging areas/access points. The boundaries of each work area and staging area shall be clearly defined and marked with visible flagging or fencing.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans. Biological Monitoring Sheet and site photo logs.	CSLC
TBio-5	During transportation of equipment, water trucks shall be used to prevent airborne particles from leaving the project site in addition to impacting monarch butterfly over-wintering habitat.	Throughout the construction period	Biological Monitoring Sheet and site photo logs.	CSLC
TBio-6	All project related equipment shall adhere to a 15 mph speed limit on-site.	Throughout the construction period	Biological Monitoring Sheet and site photo logs.	CSLC
TBio-7	To reduce inadvertent release of fuel from construction areas to aquatic habitats, all refueling will occur only within designated refueling areas located at least 100 feet from known wetlands. All nearshore ,i.e., within 100 ft of high tide line or within 100 ft of a coastal drainage, refueling and storage areas will be covered with an impervious material and surrounded by an earthen berm.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans. Biological Monitoring Sheet and site photo logs.	CSLC
TBio-8	All areas that previously supported vegetation that are disturbed during work activities shall be replanted or reseeded with appropriate indigenous native or naturalized vegetation within a time period identified by the biologist to ensures greatest survival.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources (Continued)				
TBio-9	Erosion control measures shall be implemented as necessary to prevent sediment runoff in all disturbed areas. Measures may include installation of jute-netting, erosion control logs, and silt-fencing.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-1	Minimize the use of tracked vehicles; rubber tire vehicles should be used wherever possible.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-2	Keep all vehicles above the highest high tide line and on dry sand wherever possible. At no time during project operations will vehicles be allowed to traverse identified costal foredune habitat areas; traversing ice plant is acceptable, but minimize the area of impact by creating a temporary, minimal-width access route.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-3	Minimize the need to cross rock or boulder areas by planning beach access sites as close to the hazard site as possible and in areas where sand is present along the route from access point to hazard site.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-4	Complete mid- and low-intertidal (from +0.0 to -1.0 ft, MLLW) hazard removal during winter low tide periods and avoid disturbance of surf grass and rock habitat areas by minimizing the width of the work area corridor.	Prior to the start of Project Construction Throughout the construction period.	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources (Continued)				
MBio-5	Access site by traversing the beach in a straight line from the highest high tide line to the lowest; do not “cut across” the beach, particularly in rocky habitat areas.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-6	“Sidecast” and store excavated sand inshore (higher on the beach) and above the highest predicted tide for the day. Refill holes with excavated material and remove all material and vehicles at the end of each day.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-7	If vehicles traveling from the access point to the site(s) cannot avoid rocky intertidal habitats, use temporary wooden or steel sheets to “ramp” the rocks. Sediment/sand should not be used to cover the rocky habitat. Onsite sand can be used to cover cobble (rocks 1 ft or less in diameter) habitats along the access to site corridor. Restrict the width of the route to the widest vehicle.	Prior to the start of Project Construction Throughout the construction period	Review of Grading and Erosion Control Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-8	Locate access sites away from coastal streams wherever possible and utilize existing bridges to cross. Avoid crossing or damming coastal streams that are flowing across the beach and prevent project-related discharges or trash to enter coastal streams.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans. Biological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources (Continued)				
MBio-9	Avoid conducting work activities within or adjacent to designated marine mammal rookeries and beach-area bird nesting sites during active breeding periods. Schedule removal activities during periods of non-use by these species. To the extent feasible, establish a 500 ft buffer area around work areas in marine mammal haul out areas (removal activities should cease if marine mammals are observed within the buffer area).	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans. Biological Monitoring Sheet and site photo logs.	CSLC
MBio-10	Complete removal activities on grunion spawning beaches after mid-September and before early March. If activities must occur during the period between March and mid-September, consult with CDFG and prepare a grunion monitoring plan.	Throughout the construction period	Biological Monitoring Sheet and site photo logs.	CSLC
MBio-11	Conduct a pre-anchoring survey at all proposed offshore anchoring sites and re-locate any proposed anchor sites at least 20 ft away from rocky substrate, surf grass, eelgrass, or kelp beds	Prior to start of offshore anchoring activities	Review of pre-anchoring survey and final anchoring plan.	CSLC
MBio-12	Use crown buoys and near-surface anchor lines if rock substrate, surf grass, eelgrass, or kelp is between the anchor location and vessel.	Throughout offshore work period.	Biological Monitoring sheet and site photo log.	CSLC
MBio-13	Vessels requiring multiple anchors should deploy those anchors with an anchor-assist vessel; recover anchors vertically and avoid dragging anchors across the seafloor.	Throughout offshore work period.	Biological Monitoring sheet and site photo log.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Biological Resources (Continued)				
MBio-14	Avoid traversing surface kelp areas when accessing nearshore and offshore hazard sites by vessel.	Throughout offshore work period.	Biological Monitoring sheet and site photo log.	CSLC
MBio-15	To the extent feasible, schedule offshore activities for periods other than grey whale migration seasons. All marine vessel operations shall be conducted in accordance with the procedures outlined in the Marine Wildlife Contingency Plan. Have an agency-approved marine mammal monitor onboard the vessel and provide him/her with the authority to cease operations if marine mammals are within 0.10 miles of the removal activity.	Review of Marine Wildlife Contingency Plan Throughout offshore work period.	Prior to start of offshore work. Biological Monitoring sheet and site photo log.	CSLC
MBio-16	Have an oil spill response/recovery plan for all offshore operations that require petroleum products to be onboard. Train all onboard personnel on actions to be taken in the event of an oil spill.	Review and implementation and Oil Spill Contingency Plan.	Prior to start of offshore work.	CSLC
MBio-17	Minimize the number of anchors and the water depth-to-anchor line length ratio for offshore operations without jeopardizing the safety of the operations.	Prior to start of offshore anchoring activities Throughout offshore work period.	Review of pre-anchoring survey and final anchoring plan. Biological Monitoring sheet and site photo log.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Cultural Resources				
Cul-A,B,D-1	As the California Central Coast is a significant archaeological resource for the state, environmental monitors will exercise increase awareness with respect to archaeological materials at all hazard removal sites.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans and Grading and Erosions Control Plans. Archaeological Monitoring Sheet and site photo logs.	CSLC
Cul- A,B,D-2	At all hazard removal sites and before commencing work, project crews and personnel shall be informed of the importance of the potential archaeological resources in the area and of the regulatory protections afforded to the resources. The crew should be informed of procedures relating to the discovery of archaeological remains during project activities and cautioned to avoid archaeological areas with equipment and not to collect artifacts. Personnel and the crew should inform their supervisor and the on-site monitor should cultural remains be uncovered.	Prior to the start of project activities	Briefing attendance sheet.	CSLC
Cul- A,B,D-3	Known archaeological sites shall be avoided, so as not to inflict a significant impact to the site. Avoidance can be accomplished by having the archaeologist and project engineer demarcate cultural resource boundaries on the ground to ensure that proposed project improvements do not impinge on the resource(s). Construction equipment can then be directed away from the resource, and construction personnel directed to avoid entering the area.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans and Grading and Erosions Control Plans. Archaeological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Cultural Resources (Continued)				
Cul- A,B,D-4	<p>Archaeological monitoring is required during project activities at these sites:</p> <p>Site No. 4: Ellwood West of VENOCO Ellwood Pier</p> <p>Site No. 5: Ellwood East of VENOCO Ellwood Pier</p> <p>Site No. 7: Santa Barbara Shores (B)</p> <p>Site No. 10: Isla Vista</p> <p>Site No. 18: Carpinteria State Beach</p> <p>Site No. 22: Ortega Hill, East Fernald Point</p> <p>Site No. 23: Rincon Point</p>	<p>Prior to the start of Project Construction</p> <p>Throughout the construction period</p>	<p>Review of Traffic Management and Access Plans and Grading and Erosions Control Plans.</p> <p>Archaeological Monitoring Sheet and site photo logs.</p>	CSLC
Cul- A,B,D-5	<p>At all hazard removal sites, if buried cultural resources, such as lithic debitage or groundstone, shell midden, historic debris, building foundations, or human bone, are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until the Project Archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in accordance with the CSLC, the State Historic Preservation Officer (SHPO) and other appropriate agencies. Any non-burial cultural resource artifacts recovered will become the property of the Native Americans, with the disposition of the artifacts carried out as per the approved County Guidelines</p>	Throughout the construction period.	Archaeological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Cultural Resources (Continued)				
Cul-A,B,D-6	At the Pauley Well site, fly-over anchoring and a pre-anchoring survey at all proposed offshore anchoring sites shall be conducted in order to avoid impacting any previously unidentified historic shipwrecks. Any proposed anchoring sites on or near a historic shipwreck shall be moved at least 20 feet away	Prior to start of offshore anchoring activities	Review of pre-anchoring survey and final anchoring plan.	CSLC
Cul- A,B,D-7	<p>If Native American human remains are discovered during project construction at any hazard removal site, the Project Archaeologist shall be notified and state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Pub. Res. Code Sec. 5097), shall be followed. The coordination of the procedures outlined in the Proposed Native American Burial Protection Plan is the responsibility and under the authority of the California State Lands Commission.</p> <p>In the event that human remains are unearthed, all work shall stop in the area of the find and any nearby area reasonably suspected to overlie adjacent human remains and the County Coroner notified. If the remains are determined to be of Native American descent, the Coroner shall notify the NAHC within 24 hours. Reburial or disposal of human remains shall be conducted according to the instructions of the most likely descendent, as identified by the NAHC.</p>	Throughout the construction period.	Archaeological Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Geology and Soils				
Geo-1	<p>A grading and erosion control plan shall be prepared for all areas of active cut or fill activities. Recontouring/regarding of all disturbed areas shall match the surrounding terrain, including drainage links. The grading and erosion control plan shall be designed to minimize erosion and include:</p> <ul style="list-style-type: none"> • Grading schematics with site specific diagrams and erosion control methods. • Graded areas shall be revegetated immediately following completion of hazard removal. Timing of revegetation may vary depending on vegetation areas and weather conditions. • Site specific detailed temporary erosion and sediment control plans shall be developed for all drainages and creeks and excavation areas with steep slopes. • Where appropriate, Geotextile binding fabrics or erosion control netting shall be required to hold slope soils until vegetation is established. • Straw bales, sedimentation fencing, soil compaction, water bars, trench plugs, baffle boards and trench drains shall be used to control erosion and revegetation.. <p>The plan shall include a post-construction inspection plan to inspect all areas of excavation and vegetation removal and, if necessary, repair areas of erosion.</p>	Prior to the start of project work activities	Review of Grading and Erosion Control Plan.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Geology and Soils (continued)				
Geo-2	All beach excavations shall be backfilled with native materials to the extent feasible	Throughout the construction period	Daily Site Monitoring sheets and photo logs	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Hazards and Hazardous Materials				
Haz-1	Equipment staging areas shall be identified which are located at least 100 feet from any water body or wetlands. All staging, fueling, and maintenance of vehicles shall be conducted in designated staging areas. Equipment shall be provided with drip pans nightly to prevent soil contamination during periods of inactivity. The contractor shall maintain spill containment and clean-up materials on-site during the construction activities. Any soil contaminated by fuels or petroleum-based products shall be immediately removed and placed in DOT-approved drums and properly disposed in accordance with state and federal regulations.	Prior to the start of Project Construction Throughout the construction period	Review of Traffic Management and Access Plans and Grading and Erosions Control Plans. Daily Site Monitoring Sheet and site photo logs.	CSLC
Haz-2	All heavy equipment and supplies shall be removed from the beach each day. When equipment must be left on the beach overnight, it must be stored above the tide and will not block public use of the beach.	Throughout the construction period	Daily Site Monitoring Sheet and site photo logs.	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Noise				
N-1	Use of heavy equipment or other high noise producing tools, e.g., concrete breakers, and concrete saw, at the project site will be limited to the hours of 7:00 am to 5:00 pm. and will be restricted to Monday through Friday unless otherwise agreed to by the affected neighbors (It may be desirable to have longer construction hours if it would reduce the overall construction period duration).	Throughout the construction period	Daily Site Monitoring Sheet and site photo logs.	CSLC
N-2	Nearby residents will be given advanced written notification of construction activity scheduling and hours of construction.	Prior to start of project site work.	Copy of notification.	CSLC
N-3	Noise producing stationary equipment, e.g., generators, shall be shielded and located as far as possible from residences.	Throughout the construction period	Daily Site Monitoring Report	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Recreation				
Rec-1	All work areas will be clearly delineated by safety fencing and/or an on-site monitor will be present to direct individuals around the work area. Staging areas shall be located away from major recreation paths and clearly fenced during non-work hours.	Throughout the construction period	Daily Site Monitoring Report and photo logs	CSLC

Table D-1. (Continued)

Mitigation Number	Mitigation Measure	Implementation Timing	Documentation Required	Agency Responsible
Transportation				
Trans C-1	<p>A Traffic Management and Access Plan shall be prepared for each significant access area. These plans shall include, but not limited to, the following items:</p> <ul style="list-style-type: none"> • A designated access route map and discussion. • A description and map for designed parking and staging areas. • Designation of flagmen and/or traffic control signage or measures. • Railroad crossing procedures including coordination requirements for Union Pacific Railroad permits. 	Prior to construction activities, and maintained throughout construction period	Submission of Traffic Management and Access Plan	CSLC